# Renewable energy in Kazakhstan: challenges to policy and governance

Nikolai Mouraviev




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# Renewable energy in Kazakhstan:

# Challenges to policy and governance

**Dr Nikolai Mouraviev**

**Abertay University**

**40 Bell St, Dundee, DD1 1HG, United Kingdom**

**Phone: +44-1382-308362**

**n.mouraviev@abertay.ac.uk**

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## Abstract

In light of sluggish progress in developing renewable energy generation in Kazakhstan, this paper aims to investigate the perceptions and opinions of actors in the field regarding policy design and effectiveness of governance for renewables. Known for its vast natural resources including oil, gas, and coal, Kazakhstan has been using fossil fuels as a principal driver of its economy since 1991, when it gained the status of an independent nation. While policy on renewables and governance has been institutionalised since 2006, progress has been slow. Based on the data from in-depth interviews, the study identified that actors viewed policy design as a preliminary, although necessary, stage, subject to adjustments. The investors were concerned with multiple gaps and inconsistencies in the governance structure, and many walked away. The paper concludes that the use of active power of central government appeared insufficient for delivering results in policy design and governance. Making changes to its policy and governance, the government also needs to use its agenda-setting and preference-shaping power to ensure the engagement of investors, interest groups, local communities, and consumers for increasing renewable energy generation.



**Keywords**: Kazakhstan; renewable energy; policy; governance; investors.

## 1. Introduction

An ex-Soviet nation in Central Asia, Kazakhstan is famous for its immense natural resources, including oil, gas, uranium, and coal. Relying for many years on its extractive industries, Kazakhstan has shown steady economic growth since 1991, when it became an independent country. The oil sector has been serving as a critical driver of growth and the principal source of government revenue. The nation's exports of oil, gas, and by-products represented 21% of GDP in 2018 (World Bank, 2019) and 67% of exports in 2019 (Trading Economics, 2020), which demonstrates the nation's significant dependency on the sale of its natural resources. In the neighbouring Russia (also a resource-rich country), oil and gas revenue is estimated to form 29.3% of the national budget in 2020 (Vzglyad, 2020), while fossil fuels represent 13% of GDP and 61% of exports in 2019 (Ruzhinskya and Nazarova, 2020).

Despite the large volume of oil, gas, and coal reserves in Kazakhstan, there is an ongoing discussion of the nation's energy security, which occasionally intensifies (Koulouri and Mouraviev, 2019). Much of this discussion focuses on the political dimension of energy security and the need to use oil revenue to restructure the economy; while the other side of the debate highlights opportunities to develop energy generation from renewable sources. While it would be incorrect to argue that the government experienced strong pressure to promote renewables, significant work has been done to adopt policy on renewable energy generation, and create legislative and institutional frameworks for policy implementation. This work has taken a number of years, from the mid-2000s to the present time, and there is a shared view that governance for renewables is still in the process of formation.

After more than ten years of policy implementation with incomplete and evolving governance structure, the proportion of energy from renewable sources remains very small and progress is minimal. In 2018, the share of energy from fossil fuels in Kazakhstan was 81.3%, hydro 9.7%, gas turbine  8.5%, and solar, wind, and bio energy 0.5% (KEGOC, 2019). Kazakhstan is often noted as an authoritarian state (e.g. see Fauve, 2015; Furstenberg, 2018), which means, among other features, that it has high administrative capacity to implement the government-set agenda. Nonetheless, in the case of renewables, the development was slow. It is unlikely that the dominance of the oil sector could be used as a single all-embracing explanation for the lack of progress in renewable energy generation. Although the oil sector's dominance in Kazakhstan could be observed, the government was able to shape its policy on renewables, pass relevant laws and regulations, and create institutional framework, showing a clear attempt to align the nation with industrialised world economies. This effort is evidenced by the Kazakhstan-2050 strategy (Nazarbayev, 2012). While renewables policy and governance have been institutionalised since 2006, the reasons why they have been ineffectual need to be identified.

In light of sluggish progress in developing renewable energy generation in Kazakhstan, this paper's aim is to investigate the perceptions and opinions of actors in the field regarding policy design and effectiveness of governance for renewables. This paper intends to answer the following research questions:

1. How do actors perceive effectiveness of the renewable energy policy framework in Kazakhstan?
2. How do actors perceive effectiveness of governance for renewable energy generation?

The paper is structured as follows. Section 2 describes the research methodology, how data were received and analysed. Section 3 presents findings from the research, organised into three themes, while Section 4 offers a discussion of these findings. Section 5 draws conclusions and identifies policy implications.

## 2. Methodology

For this qualitative study, data were collected by in-depth interviews, conducted in 2018–19, and content analysis of documents relevant to the promotion of renewables, which include Kazakhstan's laws, nationwide programmes, regional and local guidelines, and instructions for investors and other actors in the renewables field. Conducting 21 interviews with participants at different levels (national, regional, and local) captured varying perspectives within a range of actors on different aspects of renewables policy and its implementation. The interviews were semi-structured, guided by a topic list, so that data were collected consistently across the whole sample. The criteria for selecting a participant for the study were her/his expertise in the renewables field; knowledge of the laws, regulations, and other documents, and how they work (or not) in practice. In the interviews, the emphasis was on how the expectations regarding policy design and/or governance compared to the actual outcomes of policy and implementation, from the interviewee's perspective. The interviews were carried out in Russian, taking advantage of the researcher's native language skills. Some interviews were also conducted in Russian by the researcher's counterparts who reside in Kazakhstan. The length of the interviews varied from 30 minutes to an hour.

The interviewees included three mid-level staff working for national government organisations; two independent advisers with expertise in the field; five staff from regional

and local governments; four private investors; five academics working at Kazakhstan's universities; and two activists working for non-governmental organisations (NGOs).

A relatively small sample size has nonetheless allowed the data to reach saturation, meaning that by the end of data collection it became clear to the researcher that more data would likely elicit no new findings. The interview data, complemented by document analysis, therefore provided for data triangulation by gaining a solid understanding of policy and governance on renewables from different perspectives. By increasing the level of knowledge via the use of more than one method to understand the phenomena, the study's validity was assured.

Data were structured by the themes and thematic analysis was performed, giving consideration to different opinions and perceptions within each theme. This allowed trends and patterns to be identified in how the promotion of renewable energy has developed in Kazakhstan.

The study complied with the requirements for ethics in research. Prior to interviewing, the participants were informed that their participation was entirely voluntary and that they could refuse to take part, or terminate the interview, at any point if they so wished. As not every person in Kazakhstan, particularly government employees, is prepared to share their views on public policy and government actions, matters of confidentiality and anonymity were of critical importance for engaging participants in this study. Participants were assured that their identity would remain confidential; that their name, organisation, and other identifiable information would not be linked to the data obtained; and that anonymity would be ensured in any reporting.

## 3. Results

Three themes emerged from the interview data, around which this section has been structured: the design of a policy framework for renewable energy generation; governance arrangements for renewables, which reflect the national government's perspective; and the private investor's perspective on the governance arrangements. The study participants provided their assessment of how policy was rolled out and how governance arrangements were made by expressing their views, opinions, and perceptions. Findings in each theme are reported below.

### *3.1 Theme 1: Design of a policy framework for renewables*

Interviewees were asked to comment on the need to create a policy framework for the promotion of renewable energy and the timeliness of government actions. The study participants overwhelmingly supported, and even praised, the government's efforts to design policy that would ensure promotion of renewable energy within the nation. Interviewees emphasised that the government policy was rolled out over more than ten years, beginning with policy adoption in 2006, the Concept of transition to sustainable development (Decree of the President of the Republic of Kazakhstan on the Concept of transition of the Republic of Kazakhstan to sustainable development, 2006). Three years later the concept materialised, at least in part, in the Law on supporting the use of renewables, adopted in 2009, with amendments in 2013 – a key piece of legislation that set Kazakhstan's legal framework for renewables (Law of the Republic of Kazakhstan 'On Support of the Use of Renewable Energy Sources', 2009). Yet another document, of even greater importance, is the *Kazakhstan-2050* strategy (Nazarbayev, 2012), which put forward an ambitious goal for the

nation to become one of the 30 most developed economies in the world by 2050. The interviewees underlined that this strategy became a guiding framework for the whole country and throughout all levels of government, and would continue to serve as a principal steering force for years to come. As Kazakhstan-2050 had set the nation's strategic priorities, one of which is to increase renewable energy generation, effectively the document serves and will continue to serve as an overarching (and undisputed) long-term policy framework.

The study participants pointed out a direct link between the Kazakhstan-2050 strategy and other documents focusing on renewables, which confirms, in the interviewees' opinions, that increasing renewable energy generation has been successfully embedded in policy making. Moreover, more specific regulations and other documents exemplify continuous implementation of the renewables policy, noting as proof the 'green economy' concept that was approved by the government in 2013 (Decree of the President of the Republic of Kazakhstan on the Concept of transition of the Republic of Kazakhstan to 'green economy', 2013) and generally aligns with the law on renewables, which was amended the same year.

An interviewee provided the following evaluation of the government's work for setting the policy framework for renewables:

> Kazakhstan's dependence on oil is well known. The oil sector is very large and powerful, its leaders are prominent and influential people. A few years ago, I wouldn't even have imagined that someone would be seriously talking about renewable energy, why does the country need it? But the government was surprisingly very quick in adopting the law and regulations on renewables, which tells me that

there is an understanding in the government circles that our future is with renewable energy, not oil.

(Interviewee 4)

This is echoed by another study participant:

I was surprised, and also pleased, when I saw the law on renewables approved without any difficulties. I don't think that those who work in the oil sector or, in fact, most people expected that this law would ever become a reality. The vast majority of the population are convinced that we have oil and coal reserves for hundreds of years. This is true, reserves are huge.

(Interviewee 11)

Another participant commented as follows:

When my colleagues and I found out about this law [law on renewables], we discussed and even made some jokes, saying: 'Who needs to generate this renewable energy? Who will be the consumers if energy from coal, gas, and oil is there, and the energy system works quite well?' We thought perhaps some farmers in remote villages might be interested in renewable energy, and that's about it. But as years have passed, it looks like the interest in renewable energy generation and consumption is growing. So, the government did the right thing when it adopted the law years ago.

(Interviewee 7)

Another opinion was even more optimistic:

It was a very smart move by the government to go ahead with the law on renewables and other legislation in this field. We need to cut or at least significantly reduce the economy's dependence on oil. Look what happens when the oil price goes down. The

> budget is truly suffering, and the dollar–tenge [tenge is Kazakhstan's national currency] exchange rate goes up very quickly. We have seen this a few times in the past. It is great that some government officials started thinking about renewables as an alternative to fossil fuels.
>
> (Interviewee 16)

One participant emphasised the detrimental impact that the oil sector exerts, in his/her opinion, on other sectors, particularly on renewable energy generation.

> Of course, oil brings a lot of money to the country. But at the same time, the large size of the oil sector does not allow other industries to develop. They remain small or even non-existent. And the renewable energy sector is one of them. I know that some in the government still raise the question – why do we need to develop renewable energy if it is not going to bring any money?
>
> (Interviewee 6)

When asked about how successful the policy design was and currently is, study participants overwhelmingly agreed that the adopted law and related procedures and regulations are just the first step in promoting renewables, and a large number of inconsistencies and gaps exist. "In the very first law on renewables it is impossible to properly set all required terms and conditions. I'm sure in a few years a new, more comprehensive law will be developed and it will reflect the lessons learned" (Interviewee 19). This was confirmed by another comment: "We are clearly at the beginning stage. People, the business community, and politicians need time to warm up to the idea that renewable energy is a realistic possibility, and it is an alternative to energy from oil. Development at the initial stage is slow but this was inevitable" (Interviewee 9). Some respondents were even more optimistic: "I'm glad we have

passed the starting point. And the government should be praised for that. I expect a lot faster progress with renewable energy in the near future" (Interviewee 2). Although policy adoption was deemed timely by all interviewees, their assessment focused on timeliness, rather than on evaluating particular elements of policy design. They viewed policy design as an initial step, for which there were no particular requirements. Without critically assessing policy design and the extent to which it was complete and successful, interviewees switched the focus of their comments to governance, which formed the content of the next two themes. It emerged from the interviews that study participants viewed governance differently – from the national government's perspective and from the investors' perspective.

### *3.2 Theme 2: Governance arrangements for renewables – the national government's perspective*

Many interviewees (about a half) were convinced that the national government's was the only legitimate perspective, as it shows what the government wanted to achieve in the renewables field and how its vision materialised. These governance arrangements are nationwide conditions for policy implementation. They were devised between 2009 and 2018, based on high-level considerations of what was then required, from the national government's perspective, to ensure the flow of new private investment into renewable energy generation. Interviewees reported that the private investors' perspective was simply not there as no one represented the investors' views.

The study participants noted a large number of problems and gaps in governance, including unclear overall governance structure; overlapping areas of responsibility of various government organisations and, as a result, insufficient accountability; vagueness of

government's own instructions and procedures regarding the process of review of the proposed renewables projects; a large degree of discretion in decision-making given to some agencies, increasing the risk of error and/or corruption; and failure to set effective incentives to agencies responsible for the development of renewable energy infrastructure and power generation facilities. The following comment illustrates some problems relating to the governance structure: "It seems the government was unsure who should be responsible for what, and therefore they assigned two or more departments and agencies to work together in a certain field, but this instantly created a chaotic situation with unclear ultimate responsibility" (Interviewee 5).

A few respondents emphasised a disconnect between the laws and effective regulatory framework. This is exemplified by the following excerpt:

> Some, in fact, quite a few provisions of the laws are great but regional governments and their agencies need clear procedures on how to consider investment projects, how to finance them. For example, can they grant land for the construction of a private energy facility or should they charge the market price for this land? Some legal provisions were not supported by regulations. To be exact, some regulations did not exist, and in this situation regional agencies were reluctant to make own decisions.
>
> (Interviewee 11)

The note about reluctance to make decisions regarding investment projects overlaps with the large degree of discretionary decision-making powers given to some organisations. Although it is likely that the original intent was to provide flexibility in decisions, which should have

allowed for local and regional contexts to be integrated, the result appeared to be different: it brought about a shirking of responsibility. An interviewee commented:

> I'm aware of many renewables projects that got stuck waiting for approvals. It became clear that some officials were really afraid of making any decision, perhaps because of the risk of being penalised. Of course, private companies were puzzled with these lengthy delays. They were asking: do you really want us to invest in renewable energy or not?
>
> (Interviewee 3)

Responsibility avoidance was linked, at least in part, to the lack of incentive for government officials to actively promote development of renewable energy generation.

> For a few years it appeared that not many people in the government were interested in setting up energy generating facilities by the private companies. Companies need land to set up the facilities, and giving them land was problematic in itself. Then there are unclear procedures regarding how to connect facilities to the national grid. Then there are problems with feed-in tariffs – what if investors are unhappy with the tariff and walk away in the middle of the process? The officials, particularly in the regions, were probably concerned with why they need to do anything at all to develop renewables. The bottom line was, and still is for many, what benefit will renewables bring to the local or regional economy?
>
> (Interviewee 19)

No targets were set for the regions and central agencies regarding developing energy generation from renewables. Naturally, for the national government it was difficult to foresee which targets might be realistic at a time when the governance structure and processes were in the early days of their formation. However, it appeared that some officials and managers viewed this situation as an opportunity to opt out from any decisions that they perceived as risk-bearing. An interviewee argued that, "when there were no specific targets about launching at least a minimum number of renewables projects, for some officials it was a signal that doing nothing was totally appropriate" (Interviewee 13). This was echoed by another comment:

> We witnessed an overcautious approach to selecting and granting approvals for the projects. This is understandable – for example, if a regional government was not assigned a task to generate a certain volume of renewable energy, why would they bother to even consider any risk related to a project? It is a safe bet to ask for additional documentation, postpone the decision, then postpone again.
>
> (Interviewee 6)

The prevailing opinion about governance arrangements can be characterised by blending two viewpoints. The first was the deeply embedded belief that governance during the period 2009–19 should be assessed as temporary and incomplete due to the novelty of renewables in Kazakhstan, and there was, therefore, no expectation of making it 100% effective. The second viewpoint was that the incomplete governance arrangements backfired: as the governance structure appeared ineffective and some critical procedures were vaguely defined or lacking (e.g. how to connect a facility to the grid or what financing sources were available), the government could not make any tangible progress in promoting renewables,

and the proportion of energy from renewable sources over the ten-year period remains very small. In contrast, in other countries, such as Brazil and Spain, making governance arrangements included target setting, offering incentives to energy producers, creating feed-in-tariffs, releasing official guidance for investors, and conducting a promotional campaign (Dinica, 2008; Dutra and Szklo, 2008).

### *3.3 Theme 3: Governance arrangements for renewables – the private investors' perspective*

As interviews showed that the progress with promoting renewables stalled, without any significant, large-scale projects underway, another theme emerged from the comments of the study participants that focused on how the investors viewed governance. Specifically, interviewees discussed what impediments the investors faced and what concerns they had regarding the overall process – such as applying for a permit, setting up an energy-generating facility, construction, and supplying electrical power to the grid and receiving the payment. They emphasised three main areas of concern: a lack of opportunities for long-term borrowing to finance a project; a lack of credibility of the Financial Settlement Centre (FSC) that was assigned the role of a central agency responsible for payments to the energy producers; and uncertainty and a lack of clarity regarding the process, that is, what part of the government is responsible for what, and how long the investment process (until payments for renewable energy begin to flow in) might take.

Regarding long-term financing, the interviewees reported the commonly shared opinion among investors that, as energy generation from renewables was a new undertaking for Kazakhstan, the government should have supported this venture with financial instruments, such as low-interest loans, financing opportunities by so-called green bonds and/or special

arrangements with government investment banks or commercial banks. However, there were no specially designed financing opportunities. “Investors were on their own as far as financing was concerned. Either they should have used their own funds or got a loan from a bank. But uncertainty about when cash for renewable energy might begin flowing in prevented many from receiving a loan” (Interviewee 18).

To support transactions and payments in the renewable energy field, in 2013 Kazakhstan’s government formed the FSC, which became an important part of the governance structure for renewables. The FSC was charged with the responsibility of carrying out the centralised purchase and sale of electrical power produced from renewable sources and to supply that energy to Kazakhstan’s power system. However, for at least five years, from 2013 to about 2018, the investors were sceptical about the FSC’s ability to pay, as it remained unclear what funds are available to the FSC. The controversy regarding the FSC’s role was, in part, created by the 2009 law on renewable energy, which stipulated that energy producers are required to purchase all energy from renewable sources indirectly, through the FSC, rather than directly. An interviewee revealed that,

> an organisation was formed but all we [the investors] knew was that it would be buying the energy. There were no details regarding how much money the government gave the FSC or where the centre would get the money. What if it runs out of money and tells us [the energy suppliers] to wait until the next budget cycle?
>
> (Interviewee 16)

Lack of confidence in the FSC’s role was echoed by another study participant:

> I think it was a mistake that the role of the FSC was not properly explained and communicated to the business community. The government just made a decision to

> create this centre and then it was set up. But how was it going to work? How could we make sure that it truly has capacity to pay? Much uncertainty around this centre in its first few years of existence turned many investors away. Investors' thinking is straightforward: they need to get paid for the energy they supply. If this is uncertain, they walk away.
>
> (Interviewee 11)

Governance arrangements were subject to sharp criticism in relation to the clarity and length of the investment process. The application procedure for receiving land on which to construct a facility was perceived by investors as complicated and contradictory and far from streamlined. In particular, the regional, rather than local, authorities were given the privilege to grant land plots for the purpose of constructing energy-generating facilities that use renewable sources, as per amended Article 90 of the Land Code (2003). However, the procedure and criteria based on which the regional governments were expected to make their decisions were unclear to the investors (Interviewees 2, 16, 21). It also appeared that at this stage of the investment process companies faced significant delays, waiting many months for a decision. For example, following the procedure for receiving land (to be used for building a facility) requires at least three and a half months for completing four out of ten sub-stages, while the timeline is not set for the remaining six sub-stages, all these leading to the lengthy waiting time (Koulouri and Mouraviev, 2018). Furthermore, investors were uncertain about the role of the local authorities, that is, whether they need to facilitate investment in renewables or can remain disengaged.

Another part of process-related governance concerned arrangements for connecting energy-generating facilities to the grid. This task was assigned to the regional power transmission companies, although the timeframe for connecting was unclear and the interviewees (and investors) were unaware of whether investors could apply for compensation from the transmission companies in case of a delay. This uncertainty was a serious concern for the investors. An interviewee commented:

> I stayed in touch with a few investors for a couple of years. I could clearly see their rapidly growing frustration with the process and lack of clarity about many procedures. In one conversation an investor shared with me his talk with someone in the regional agency when he [the investor] was trying to understand how quickly his facility can be connected to the grid. And he could not get an answer… For a businessman, it was unbelievable. It was very frustrating.
>
> (Interviewee 3)

Clarity in the overall process of launching a facility – from expressing initial interest to generating energy – was a deep concern for the vast majority of private investors. Although the process was driven by the law on renewables and other legislation, studying all normative (i.e. prescriptive) documents was overwhelming for most investors.

> I first developed my interest in setting up a solar energy facility in 2011. However, I quickly got lost while reading the laws, government programmes, and instructions. I saw some contradictions, I couldn't find answers to my questions, and of course I gave up. Then, when a guide for investors was released, I took it as an excellent step forward – it showed what an investor should go through, although there were still quite a few gaps.

(Interviewee 6)

The guide for investors mentioned here is for those interested in launching an energy-generating facility from renewable sources, and was published for Kazakhstan in 2015 by the International Finance Corporation (IFC, 2015). The guide was prepared in collaboration with the Ministry of Energy and the Clean Technology Fund and explains the stages an investor has to go through, with sub-stages, agencies involved, and the estimated time required for completing each stage. The guide shows that an investor has to complete at least nine stages including at least 40 sub-stages (Koulouri and Mouraviev, 2018). The number of agencies involved in each stage ranged from one to five, while the time involved in completing most of sub-stages was unspecified (Koulouri and Mouraviev, 2018). This ambiguity was confirmed by many interviewees' comments, such as: "A guide for investors was helpful but only to a degree, lots of things remained unclear. Moreover, after I looked through the guide I thought: do I really need to go through all this bureaucracy? What for? There are other opportunities for investment" (Interviewee 12).

To summarise, although the investors welcomed the guide, they were still deeply concerned with the process, as the guide does not cover the gaps in the governance arrangements. These gaps could be described as the lack of clarity in the investment process (regarding stages, sub-stages, timeframe, regulations, or lack thereof) and significant bureaucratic discretion in relation to a vast range of decisions, due to which many investors during that time (around 2010–18) walked away from the prospect of building a facility that would generate energy from renewable sources. There was a general agreement among interviewees that a

substantial number of investors walked away as a result of these barriers, with some interviewees estimating the number of discouraged investors to be a few hundred.

## 4. Discussion

This section discusses the findings in each theme. In the first theme (design of policy framework), the interviewees' opinions emphasised three principal features: (a) the government took an active role in putting forward an initiative of adopting policy on renewables, without any significant pressure from the interest groups; (b) policy design should be viewed as initial, temporary, and experimental until the government learns from its own experience; and therefore (c) there was no expectation that policy design should necessarily have been successful. Owing to the low expectations, the interviewees' assessment of the government's achievements in policy design was mostly positive. They praised the mere fact that, in a country with abundant fossil fuels (and no apparent need for energy from renewable sources), the government's power was used, in their opinion, as an intentional force to break the economy's long-lasting dependency on oil, gas, and coal. However, the interviewees' laudatory remarks contain an implicit contradiction: while the government's effort to launch a policy on renewables was viewed as a manifestation of intentional and active power (Lukes, 2005), there was limited or no criticism that the same intentional and active power effectively created the nation's dependency on oil since Kazakhstan gained its independence in 1991, and this dependency continues to date.

In themes 2 and 3, the interviewees offered a large number of critical comments, pointing to many unfavorable governance arrangements for renewable energy. The interviewees reported a clear mismatch between government's expectations regarding how governance should be

put in place, on the one hand, and investors' expectations of how their investment process should be facilitated, on the other. When asked about the government's rationale for setting certain aspects of governance, the interviewees' opinions were somewhat appreciative in a sense of acknowledging some (limited) progress, although – importantly – the results have not yet been achieved. While interviewees welcomed the government's efforts to put in place arrangements to promote renewable energy, they noted a broad range of discrepancies, gaps and outstanding problems and expressed their criticism of the incomplete governance structure that was not operational for the most part and, therefore, did not allow to attract investment. When asked about the investors' perspective – that is, how they understand governance and the investment process – the interviewees provided a rather disadvantageous picture, showing a large number of inconsistencies and gaps in the arrangements. The interviewees emphasised multiple times that, owing to these irregularities, many investors walked away and lost their interest in renewable energy generation. The bottom line is whether renewable energy generation was/is increasing or not, because governance arrangements should be effective in achieving the policy goals. As numbers show that, to date, the proportion of renewable energy (solar, wind, and biofuels) remains below 1%. Furthermore, although the trajectory shows a relatively small increase of solar, wind and biofuels (see Table 1), this did not change the structure of the energy mix, and, therefore, it is hardly possible to positively assess the effectiveness of governance.

< Insert Table 1 about here >

Table 2 summarises the characteristics of each theme and shows a perspective adopted by a majority of interviewees within a certain theme.

< Insert Table 2 about here >

As Table 2 shows, the existing gaps in the policy framework might indicate a lack of government's preparedness or lack of action. The gaps might also be explained by a cautious and relatively slow approach to building governance for renewables in order to avoid or minimise mistakes.

In the second theme that describes the government's perspective while it was building the governance structure, the government showed an intent to exert influence on the investors and society at large by setting an agenda to promote renewables. However, the study showed that this influence appeared quite limited because the need for renewable energy in Kazakhstan has not yet become a commonly accepted idea, and examples of fast and effective investment in renewables are hard to find.

The government's limited impact on society and specifically on investors is also shown in the third theme, which captures the investors' perceptions of and opinions regarding governance for renewables. It is worth emphasising a lack of effective arrangements to facilitate private investment in renewables, which remained very small. In other words, business people's willingness to invest in renewable energy has yet to strengthen. One of the critical reasons for this was an acute lack of incentive for both government officials and investors to launch renewable energy facilities. Furthermore, customers' preference to receive energy from renewable sources, rather than fossil fuels, was and still is virtually non-existent in Kazakhstan. The notes about barriers to investing in renewable energy are aligned with the findings of other researchers. For example, assessing various options for energy investment in Kazakhstan, MacGregor (2017) argues that 'renewable energy is often considered a clear win

for energy security and global environmental and social values, but our findings provide little support for this in Kazakhstan's case. Both financially and economically, we find limited evidence on which to base a recommendation to pursue renewable energy' (p. 221).

## 5. Conclusions and policy implications

Kazakhstan's policy on renewable energy has been developing for about 15 years, since the mid-2000s. The first 10 to 12 years may be viewed as an initial stage, which is naturally characterised by novel requirements in many fields including designing key elements of policy, setting legal and regulatory frameworks, assigning responsibility to various actors, creating procedures for a broad range of tasks, and establishing the processes for investing in renewables (Karatayev *et al*., 2016). The study showed different actions, achievements and gaps when the government designed policy and the governance structure. As the study demonstrated, government efforts produced varying results, in the interviewees' opinions, which leads to the conclusion that assessment of these efforts was directly linked to a perspective adopted by the interviewees.

Another conclusion is that the government's own effort, without engaging a broader range of actors, appeared insufficient for delivering results in policy design and governance, which would satisfy the vast majority of stakeholders. It became particularly evident when the government had to make adjustments to governance, which should have been carried out with the active engagement of the business community and regional actors (Mouraviev and Koulouri, 2018; Naizabekov and Bozhko, 2018). In this situation, it was critical to ensure a high degree of involvement of actors in the field, rather than relying primarily on the national government's expertise. However, both agenda-setting (in the form of promoting a society-

wide discussion and soliciting expert advice from an emerging investors' community) and preference-shaping (in the form of promoting renewable energy as a requirement for ensuring tomorrow's ecological and economic sustainability) were almost imperceptible in the government's efforts. Therefore, renewable energy has not yet become a commonly accepted agenda item for interest groups and businesses, and nor has it yet become an established preference of consumers (be it organisations or households).

A further conclusion could be drawn in the area of preference-shaping and agenda-setting. It is likely that both will become strong influential dimensions of power when the government's and society's preferences are shared, that is, when the government promotes what society accepts and wants and, conversely, when society at large actively supports the government's agenda (Mouraviev and Kakabadse, 2016). This is yet to occur in Kazakhstan regarding promotion of renewables.

For 30 years, the government has been focusing on the development of the oil industry, which became a dominant sector of the national economy (Koulouri and Mouraviev, 2019). When the government adopted laws and regulations aiming to develop renewables, this naturally provoked public scepticism that the government might not be sufficiently serious or active in their approach to developing the renewable energy industry (Karatayev *et al*., 2016). This was, unfortunately, exacerbated by the scepticism of the investors who faced a large number of gaps and inconsistencies in governance, which served as impediments to investment. To date, scepticism prevails, as the oil sector's dominance remains apparent in Kazakhstan, and the economy's dependence on oil and oil revenue continues (Mouraviev and Koulouri, 2019). To overcome society's scepticism, the government should scale up and

consolidate its efforts in agenda-setting and shaping preferences for renewables, linking increased generation and consumption of renewable energy to the nation's long-term energy security and sustainability, which aligns with the Kazakhstan-2050 strategy (Nazarbayev, 2012).

### *5.1 Policy implications*

As different types of influence and efforts were used by the government at varying levels for developing the renewables sector, the following two implications for policy can be identified. The first is that the government needs to *form a policy network*. Currently, the government continues to adjust governance by making use of its own expertise. However, efforts are likely to be more fruitful when they involve investors, business associations, citizens, environmental interest groups, community activists, and scientists. This will open the way for renewable energy to be included on the agenda at all levels (national, regional, and local) and in all parts of the country.

The second policy implication relates to *engaging the investor community* in improvements of governance. This critical factor should be viewed as a separate task, as investors require specialised, focused consultations and they need to see evidence that their concerns and proposals are taken on board. As development of renewables is dependent on private investment, the importance of this policy implication should not be underestimated. For the government, its own priorities and resources (e.g. allocation of land plots, keeping the feed-in tariff unchanged for a number of years) will have to be balanced with the investors' needs and requirements, which will allow progress to be made in developing energy generation from renewables and, hence, achieve the policy goals.

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**Table 1. Power generation in Kazakhstan by source (%)**

| | 2015 | 2018 |
|---|---|---|
| Fossil fuels | 81.6 | 81.3 |
| Hydro | 10.2 | 9.7 |
| Gas turbine | 8.0 | 8.5 |
| Solar and wind | 0.2 | 0.5* |
| Total | 100 | 100 |

*Solar, wind and bio energy in 2018

Source: Kazakhstan Electricity Grid Operating Company (KEGOC), 2017 and 2019.

**Table 2. Study findings: assessment of interviewees' opinions**

| **Themes (areas of findings)** | **Principal achievements/ characteristics** | **Assessment of interviewees' perceptions and opinions** |
|---|---|---|
| Policy framework | Legal framework for energy generation from renewables was created, although gaps exist. | Somewhat laudatory remarks were available, acknowledging government's effort to design policy on renewables as the first step. Success of policy design was assessed as minimal. |
| Governance arrangements – the national government's perspective | Principal elements of the governance structure were created including the FSC, a guide for investors, and procedures for granting land. | There were a number of approving comments, going with the flow of the government's logic. Most interviewees expressed their criticism of the incomplete governance structure. |

| | | |
|---|---|---|
| | | Investors' interests were of limited importance. A mismatch was noted between government's expectations of governance and investors' perspective on how their investment process should be structured. |
| The private investors' perspective on the governance arrangements | Governance arrangements left considerable gaps, lacking procedures and streamlined approval processes, and showing limited accountability of various agencies. The incentives to launch renewable energy facilities were missing for both government officials and investors. | Comments showed many gaps and inconsistencies in governance. Interviewees confirmed that many investors walked away due to high degree of uncertainty and lack of clarity. |

Source: Compiled by the author.